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201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
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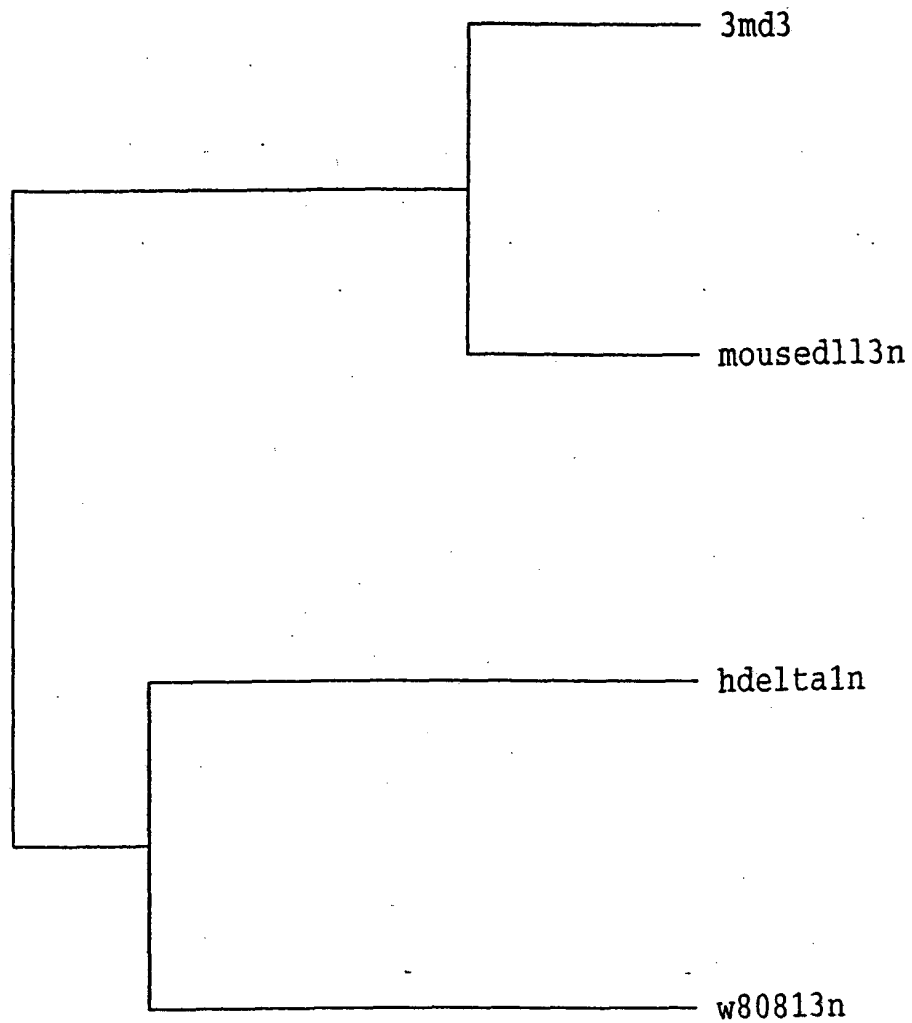


FIGURE 2

FIGURE 3A

mouseid	hidetailn	w80811n	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485	1486	1487	1488	1489	1490	1491	1492	1493	1494	1495	1496	1497	1498	1499	1500	1501	1502	1503	1504	1505	1506	1507	1508	1509	1510	1511	1512	1513	1514	1515	1516	1517	1518	1519	1520	1521	1522	1523	1524	1525	1526	1527	1528	1529	1530	1531	1532	1533	1534	1535	1536	1537	1538	1539	1540	1541	1542	1543	1544	1545	1546	1547	1548	1549	1550	1551	1552	1553	1554	1555	1556	1557	1558	1559	1560	1561	1562	1563	1564	1565	1566	1567	1568	1569	1570	1571	1572	1573	1574	1575	1576	1577	1578	1579	1580	1581	1582	1583	1584	1585	1586	1587	1588	1589	1590	1591	1592	1593	1594	1595	1596	1597	1598	1599	1600	1601	1602	1603	1604	1605	1606	1607	1608	1609	1610	1611	1612	1613	1614	1615	1616	1617	1618	1619	1620	1621	1622	1623	1624	1625	1626	1627	1628	1629	1630	1631	1632	1633	1634	1635	1636	1637	1638	1639	1640	1641	1642	1643	1644	1645	1646	1647	1648	1649	1650	1651	1652	1653	1654	1655	1656	1657	1658	1659	1660	1661	1662	1663	1664	1665	1666	1667	1668	1669	1670	1671	1672	1673	1674	1675	1676	1677	1678	1679	1680	1681	1682	1683	1684	1685	1686	1687	1688	1689	1690	1691	1692	1693	1694	1695	1696	1697	1698	1699	1700	1701	1702	1703	1704	1705	1706	1707	1708	1709	1710	1711	1712	1713	1714	1715	1716	1717	1718	1719	1720	1721	1722	1723	1724	1725	1726	1727	1728	1729	1730	1731	1732	1733	1734	1735	1736	1737	1738	1739	1740	1741	1742	1743	1744	1745	1746	1747	1748	1749	1750	1751	1752	1753	1754	1755	1756	1757	1758	1759	1760	1761	1762	1763	1764	1765	1766	1767	1768	1769	1770	1771	1772	1773	1774	1775	1776	1777	1778	1779	1780	1781	1782	1783	1784	1785	1786	1787	1788	1789	1790	1791	1792	1793	1794	1795	1796	1797	1798	1799	1800	1801	1802
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FIGURE 3B

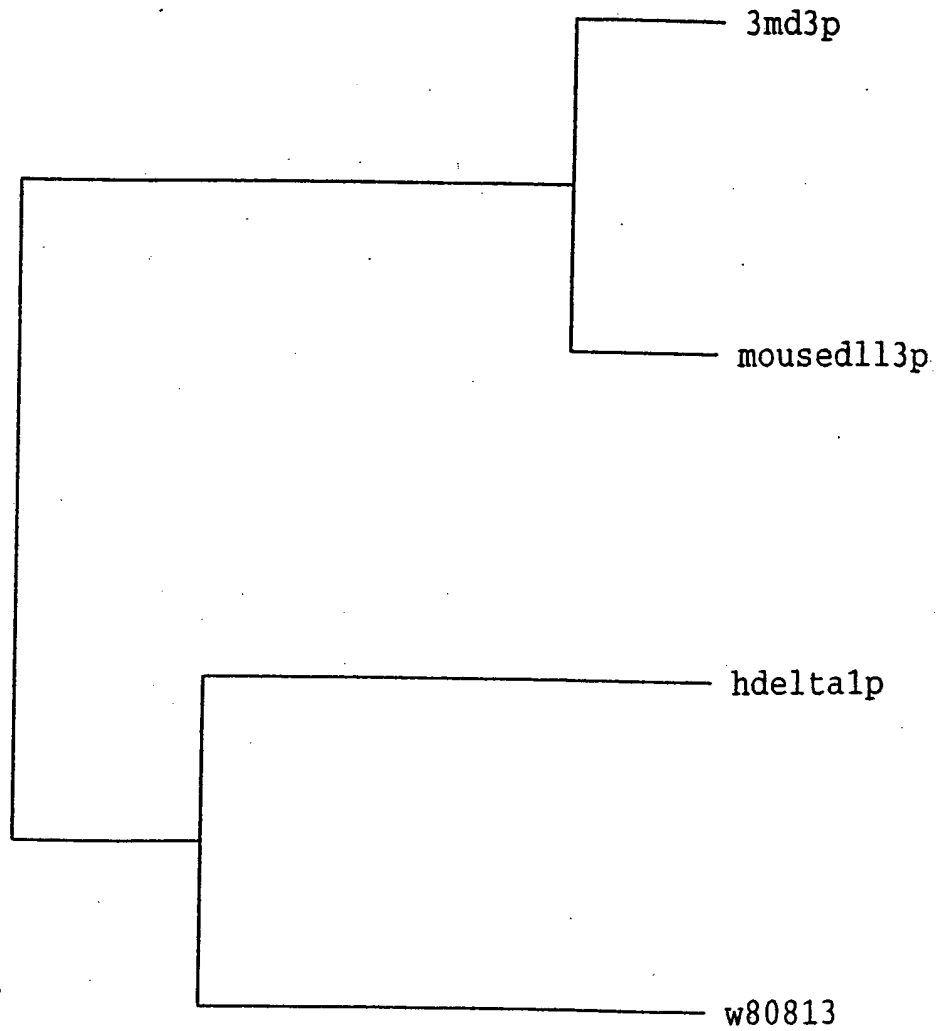


FIGURE 4

3md3 Nucleotide Sequence: 1752 (SEQ ID NO:1)

ATGGTCTCCCCACGGATGTCCGGGCTCCTCTCCCAGACTGTGATCCTAGC
GCTCATTTTCTCCCCCAGACACGGCCGCTGGCGTCTTCGAGCTGCAGA
TCCACTCTTTTCGGGCCGGGTCCAGGCCCTGGGGCCCCGCGGTCCCCCTGC
AGCGCCCGGCTCCCTGCGCCTCTTCTTCAGAGTCTGCCTGAAGCCTGG
GCTCTCAGAGGAGGCCGCGAGTCCCCGTGCGCCCTGGGCGCGGCGCTGA
GTGCGCGCGGACCGGTCTACACCGAGCAGCCGGAGCGCCCGCGCCTGAT
CTCCCACTGCCGACGGCCTCTTGCGAGGTGCCCTTCCGGGACGCTGGCC
TGGCACCTTCTCTTTCATCATCGAAACCTGGAGAGAGGAGTTAGGAGACC
AGATTGGAGGGCCCGCTGGAGCCTGCTGGCGCGCTGGCTGGCAGGCGG
CGCTTGGCAGCCGGAGGCCGTGGGCCCGGGACATTAGCGCGCAGGCGC
CTGGGAGCTGCGCTGCTCGTACCGCGCGCGCTGCGAGCCGCTGCGGTG
GGACCGCGTGACGCGCCTCTGCCGTCCGCGCAGCGCCCCCTCGCGGTG
GGTCCGGGACTGCGCCCCCTGCGCACCGCTCGAGSACGAATCGGTGTGCGG
AGCAGGCTGCAGCCCTGAGCATGGCTTCTGTGAACAGCCCGTGAATGCC
GATGCCTAGAGGGCTGGACTGGACCCCTCTGCACGGTCCCTGTCTCCACC
AGCAGCTGCCTCAGCCCCAGGGGCCGTCTCTGCTACCACCGGATGCCT
TGTCCCTGGGCCTGGGCCCTGTGACGGGAACCCGTGTGCCAATGGAGGCA
GCTGTAGTGAGACACCCAGGTCCTTTGAATGCACCTGCCCGCGTGGGTT
TACGGGCTGCGGTGTGAGGTGAGCGGGGTGACATGTGCAGATGGACCCTG
CTTCAACGGCGGCTTGTGTGTGCGGGGTGCAGACCCTGACTCTGCCTACA
TCTGCCACTGCCACCTGGTTTCCAAGGCTCCAAGTGTGAGAAGAGGGTG
GACCGGTGCAGCCTGCAGCCATGCCCAATGGCGGACTCTGCCTGGACCT
GGGCCACGCCCTGCGCTGCCGCTGCCGCGCCGCTTCCGCGGTCTCTCGT
GCGAGCACGACCTGGACGACTGCGCGGGCCGCGCCTGCGCTAACGGCGGC
ACGTGTGTGGAGGGCGGCGCGCACCGCTGCTCCTGCGCGCTGGGCTT
CGGCGGCGCGGACTGCCGCGAGCGCGGACCCGTGCGCGCGCGCCCT
GTGCTCACGGCGCGCGCTGCTACGCCCACTTCTCCGGCCTCGTCTGCGCT
TGCGCTCCCGGCTACATGGGAGCGCGGTGTGAGTTCCAGTGCACCCGGA
CGGCGCAAGCGCCTTGGCCGCGGCCCGCGGCGCTCAGGCCCGGGGACC
CTCAGCGCTACCTTTTGCTCCGGCTCTGGGACTGCTCGTGGCCGCGGGC
GTGGCCGGCGCTGCGCTCTTGCTGGTCCACGTGCGCGCCGCTGGCCACTC
CCAGGATGCTGGGTCTCGCTTGCTGGCTGGGACCCCGGAGCCGTCACTCC
ACGCACTCCCGGATGCACTCAACAACCTAAGGACGCGAGGAGGTTCCGGG
GATGGTCCGAGCTCGTCCGTAGATTGGAATCGCCCTGAAGATGTAGACCC
TCAAGGGATTATGTCATATCTGCTCCTTCCATCTACGCTCGGGAGGCCT
GA

FIGURE 5A

3md3 Protein Sequence: 583 (SEQ ID NO:2)

MVSPRMSGLLSQTIVILALIFLPQTRPAGVFELQIHSEFGPGPGAPRSPCS
ARLPCRLFFRVCLKPGLSEEAESPALGAALSARGPVYTEQGPAPADLP
LPDGLLQVPFRDAWPGTFSFIIETWREELGDQIGGPAWSLLARVAGRRRLA
AGGPWARDIQRAGAWELRCSYRARCEPPAVGTACTRLCRPRSAPSRCGPGL
RPCAPLEDESVCRAGCSPEHGFCEQPGECRCLEGWTGPLCTVPVSTSSCLS
PRGPSSATTGCLVPGPGPCDGNPCANGGSCSETPRSFECTCPRGFYGLRCE
VSGVTCADGPCFNGGLCVGGADPDSAYICHCPPGFQGSNCEKRVDRCSLQP
CRNGGLCLDLGHALRCRCRAGFAGPRCEHDLDDCAGRACANGGTCVEGGGA
HRCSCALGFGGRDRCRERADPCAARPCAHHGGRCYAHFSGLVCAAPGYMGAR
CEFPVHPDGASALPAAPPGLRPGDPQRYLLPPALGLLVAAGVAGAALLLVH
VRRRGHSQDAGSRLLAGTPEPSVHALPDALNNLRTQEGSGDGPSSSVDNRR
PEDVDPQGIYVISAPSIYAREA

FIGURE 5B

FIGURE 6

2hd1 nucleotide sequence (SEQ ID NO:3)

AGTACTCCTACCGCTTCGTGTGTGACGAACACTACTACGGAGAGGGCTGCTCCGTTTTCT
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GCAACCCCTGGCTGGAAGGGCCCTACTGCACAGAGCGTGAGTCTCTGGGAAGGCACCGCT
GGCTCACTCGTCCACGAACACGGACCACGCGCAGGGACGGGGCTTCTGAGCCACGGGGG
GCTTGGGACTGTAGAGATGTTCTGGTGGGGAACTGAGGCCAGAGGACAGAAGTGGATT
GGTATAAGTACAGCTCGTCAGTGGGGGGGTGGGGTCAACGCAGACATTTAACATCCC
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GAGTTCACAGTGTGGAACAGCATCACACTGGGAAACGTTCCATTTCTCTCTGGAGCTG
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TATGCTGGCCAGAGAGCAGGCTTTCACTCCTGTGGGCTGCTGAGGCCAGGTCTCCAAGGC
CTGTGTGGGCGAGGGGTGCACAGCCCCGTCTGGCTTGAATGCTCAGGCAGCACCTTGTCT
GGAAAAGCAATGTCTTCCCAATAGTGACAGAGGCTCTACCTGCCTCTTATTAGGTATTGA
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CCTGGCCCGTCCCAGCCCATTGGTACCGGATTTCTCTACAGCTGGGGATTGGGTAGGTCC
TGGAGCTGCCCGAGAACTCCAGGAACTGTCAATTCCTTCCTTGGAACTGGACAACCTT
GGAGAGGGGCTCTGGAGGCCCAGAACCTCTGGCAGGAGCTGGGTAGTGCCTGGGGTTGA
GGGTGGGTCTTCCCATTCCTGAGTGCCTTGATGTCTTGTCTTGTCTTCCCAATTTC
CCTCCGAACTTACTGAGCTCCTTCTAAGCTTTGCCTTGGCCTGAACTGGTTCTGGGGAA
AA

2hd1 protein sequence (SEQ ID NO:4)

GRIDLKYSYRFVCDHYHGECSVFPCRPRDDAFGHFTCGERGEKVCNPGWKGPYCTERES
LGRHRWLTRPRTTTRRDGAS

FIGURE 7

Notch signaling

Upon binding to Delta or Jagged (Notch ligands), the intracellular domain of Notch is cleaved by a presenilin-dependent pathway and translocates to the nucleus along with DNA-binding protein, CSL, to activate transcription of downstream genes. The intracellular domain of Notch also downregulates the JNK pathway through a CSL independent mechanism. Modulators of the pathway includes Kuzbanian, an ADAM protease that positively regulate Notch signaling, and Fringe, a putative glycosyltransferase that inhibits Jagged signaling.

